



SEQUENCE LISTING

<110> Chakravarti, Shukti
Case Western Reserve University

<120> Gene Expression Profiling of Inflammatory Bowel Disease

<130> 021825-004710US

<140> US 09/694,758
<141> 2000-10-23

<150> US 60/160,835
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<170> PatentIn Ver. 2.1

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<223> monocyte-derived neutrophil chemotactic factor
(MDNCF); interleukin 8 (IL-8) precursor; small
inducible cytokine, subfamily B, member 8 (SCYB8);
chemokine (C-X-C motif) ligand 8 (CXCL8)

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(MDNCF); interleukin 8 (IL-8) precursor; small
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chemokine (C-X-C motif) ligand 8 (CXCL8)

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protein ACT-2 precursor; secreted protein G-26

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<212> DNA
<213> Homo sapiens

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precursor; small inducible cytokine A4 (SCYA4);
chemokine (C-C motif) ligand 4 (CCL4); activation
protein ACT-2 precursor; secreted protein G-26

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interleukin-1 beta precursor; catabolin

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<223> n = g, a, c or t

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<211> 1684

<212> DNA

<213> Homo sapiens

<220>

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<211> 2376

<212> DNA

<213> Homo sapiens

<220>

<223> hepatoma-derived growth factor (HDGF);
high-mobility group protein 1-like 2 (HMG-1L2)

<400> 13

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<210> 14
 <211> 534
 <212> DNA
 <213> Homo sapiens

<220>
 <223> neutrophil lipocalin (HNL); lipocalin 2 (LCN2);
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 (Hngal, NGAL); oncogene 24p3; 25 kDa
 alpha-2-microglobulin-related subunit of MMP-9

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<210> 15
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 <212> DNA
 <213> Homo sapiens

<220>
 <223> neutrophil lipocalin (HNL); lipocalin 2 (LCN2);
 human neutrophil gelatinase-associated lipocalin
 (Hngal, NGAL); oncogene 24p3; 25 kDa
 alpha-2-microglobulin-related subunit of MMP-9

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<210> 16
<211> 634
<212> DNA
<213> Homo sapiens

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<220>
<223> nitric oxide synthase (NOS2); inducible nitric
oxide synthase (INOS)

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<210> 17
<211> 6004
<212> DNA
<213> Homo sapiens

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<220>
<223> mitochondrial superoxide dismutase (SOD2);
manganese-containing superoxide dismutase
(mangano-superoxide dismutase, MnSOD);
indophenoloxidase B (IPO-B)

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<223> n = g, a, c or t

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<213> Homo sapiens

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 inducible protein 4 (TP53I4, PIG4)

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<212> DNA

<213> Homo sapiens

<220>

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 <213> Homo sapiens

<220>
 <223> metallothionein

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<210> 26

<211> 3411

<212> DNA

<213> Homo sapiens

<220>

<223> regenerating islet-derived 1 beta (REG1B) precursor;
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precursor; secretory pancreatic stone protein 2;
pancreatic thread protein (PTP)

<400> 26

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<210> 27
 <211> 4251
 <212> DNA
 <213> Homo sapiens

<220>
 <223> regenerating islet-derived 1 alpha (REG1A) precursor;
 regenerating protein I alpha; lithostathine 1 alpha
 precursor; secretory pancreatic stone protein (PSP, PSPS);
 pancreatic thread protein (PTP)

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<210> 28
 <211> 4497
 <212> DNA
 <213> Homo sapiens

<220>
 <223> pancreatitis-associated protein 1 (PAP, PAP1) precursor;
 regenerating islet-derived protein 3 alpha (REG3A,
 Reg III-alpha) precursor; hepatocarcinoma-intestine-pancreas
 (HIP); proliferation-inducing protein 34 (PIG34)

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 <213> Homo sapiens

<220>
 <223> zinc finger protein 436 (ZNF436), DNA-binding
 protein; KIAA1710

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<210> 31

<211> 565

<212> DNA

<213> Homo sapiens

<220>

<223> S100 calcium-binding protein A9 (S100A9);
calgranulin B (CAGB); migration inhibitory
factor-related protein 14 (MRP-14)

<400> 31

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<211> 952

<212> DNA

<213> Homo sapiens

<220>

<220>

<223> nicotinamide N-methyltransferase (NNMT)

<400> 32

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<211> 4466

<212> DNA

<213> Homo sapiens

<220>

<223> lymphocyte G0/G1 switch regulatory protein 2
(GOS2)

<400> 33

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<210> 34

<211> 439

<212> DNA

<213> Homo sapiens

<220>

<223> S100 calcium-binding protein P (S100P);
migration-inducing gene 9

<400> 34

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aatgcttatg	aaaaaaaaa					439

<210> 35
 <211> 565
 <212> DNA
 <213> Homo sapiens

<220>

<223> annexin V, annexin 5, annexin A5 (ANX5, ANXA5); lipocortin V; endonexin II; anchorin CII; placental anticoagulant protein I (PAP-I); vascular anticoagulant-alpha (VAC-alpha); calphobindin; anticoagulant protein 4

<400> 35

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aaacatttct gtccccctga attat                                     565
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<210> 36
 <211> 3678
 <212> DNA
 <213> Homo sapiens

<220>

<223> hypoxia-inducible factor 1 alpha (HIF1A, HIF-1 alpha); basic-helix-loop-helix-PAS protein MOP1; ARNT interacting protein

<400> 36

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<210> 37

<211> 1910

<212> DNA

<213> Homo sapiens

<220>

<223> nuclear factor of interleukin 6 (NF-IL6);
interleukin 6-dependent DNA-binding protein;
transcription factor 5

<220>

<221> modified_base

<222> (1)..(1910)

<223> n = g, a, c or t

<400> 37

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<210> 38
<211> 774
<212> DNA
<213> Homo sapiens

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<220>
<223> suppressor of mif two 3 homolog 2 (SMT3H2, HSMT3)
precursor; MIF2 suppressor; small
ubiquitin-related modifier 2 (SUMO2); sentrin 2

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<220>
<221> modified_base
<222> (1)..(774)
<223> n = g, a, c or t

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<210> 39
 <211> 2841
 <212> DNA
 <213> Homo sapiens

<220>
 <223> SWI/SNF related, matrix-associated, actin dependent regulator of chromatin, subfamily d, member 1 (SMARCD1); SWI/SNF complex 60 kDa subunit A; chromatin remodeling complex BRG-1/Brm associated factor 60A (BAF60A); Swp73-like protein

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 <211> 2444
 <212> DNA
 <213> Homo sapiens

<220>
 <223> NF-kappa-B transcription factor p65 subunit
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<210> 41
 <211> 1301
 <212> DNA
 <213> Homo sapiens

<220>

<223> basic transcription element binding protein 2;
transcription factor BTEB2; krueppel-like factor 5
(intestinal) (KLF5, IKLF); similar to colon
Krueppel-like factor (CKLF); GC-box binding protein

<400> 41

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<210> 42

<211> 2346

<212> DNA

<213> Homo sapiens

<220>

<223> guanine nucleotide-binding protein alpha subunit
(GNAS1, Gs alpha); secretogranin VI

<400> 42

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<211> 41936

<212> DNA

<213> Homo sapiens

<220>

<223> liver-specific bHLH-Zip transcription factor;
B6CBA LISCH7 homolog; lipolysis-stimulated
lipoprotein receptor; chromosome 19-cosmid R30879

<400> 43

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 <212> DNA
 <213> Homo sapiens

<220>
 <223> zinc finger protein 91 (ZNF91); Krueppel related
 zinc finger protein; HTF10; HPF7

<400> 45
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<210> 46
 <211> 1381
 <212> DNA
 <213> Homo sapiens

<220>
 <223> general transcription factor IIIA (GTF3A)

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g
1381

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```

<210> 47
<211> 952
<212> DNA
<213> Homo sapiens

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<220>
<223> sorcin CP-22 (SRI); calcium binding protein
      amplified in multidrug-resistant cells

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```

<400> 47
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gaactctggg ctgtactgaa tggctggaga caacacttta tcagttttga cactgacagg 360
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```

<210> 48
<211> 1360
<212> DNA
<213> Homo sapiens

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<220>

<223> creatine kinase, brain, creatine kinase-B (CKB,
B-CK, CKBB)

<400> 48

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acgagttccc cgacctgagc gccacaaca accacatggc caaggtgctg acccccagac 120
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<210> 49

<211> 927

<212> DNA

<213> Homo sapiens

<220>

<223> epithelial protein up-regulated in carcinoma
(DD96); membrane associated protein 17 (MAP17);
PDZK1 interacting protein 1 (PDZK1IP1)

<400> 49

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<210> 50
 <211> 595
 <212> DNA
 <213> Homo sapiens

<220>
 <223> calgizzarin; S100 calcium binding protein A11
 (S100A11); protein S100C; MLN 70

<400> 50
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<210> 51
 <211> 1433
 <212> DNA
 <213> Homo sapiens

<220>
 <223> down-regulated in rhabdomyosarcoma LIM protein
 (DRAL); four and a half LIM domains protein 2
 (FHL-2); skeletal muscle LIM-protein 3 (SLIM 3);
 aging associated gene 11 (AAG11)

<400> 51
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<210> 52
 <211> 2416
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MAX interacting protein 1 (MXI1); MAX interactor 1
 tumor suppressor; Max-related transcription
 factor; MAX dimerization protein 2

<400> 52
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<210> 53
 <211> 2881
 <212> DNA
 <213> Homo sapiens

<220>

<223> colon mucosa-associated down-regulated in adenoma
(DRA); solute carrier family 26, member 3
(SLC26A3); chloride anion exchanger; congenital
chloride diarrhea

<400> 53

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 <213> Homo sapiens

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 <223> MHC class II HLA-DP light chain

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 <223> MHC class II HLA-DR beta 1 chain precursor
 (HLA-DRB4)

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<210> 56
 <211> 213
 <212> DNA
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<220>
 <223> MHC HLA class II DG; HLA-DR gamma chain; CD74
 antigen

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 <213> Homo sapiens

<220>
 <223> MHC HLA class II DR alpha heavy chain (HLA-DRA)

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 <212> DNA
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 RING6

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cacgaaattg	accgctacac	agcaattgcc	tattgggtac	cccggaacgc	actgccctca	720
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tcttgcctag	gatctcctct	tagggtagaa	gaagtctctg	ggacatccct	ggggtgtgtg	960
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aaaaaaaaaa	aaaaaaaaaa					1100

<210> 60
 <211> 1763
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MHC HLA class II DR2-Dw12 DQw1-beta chain
 (HLA-DRB2; HLA-Dw12)

<400> 60						
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gtccagtgct	tgattgggtc	ttttccaaag	gcccatctaa	tcctaccacg	cacggaaata	120
tccacaggtt	tttattcttt	ctgccagcta	catcagatcc	atcagggtccg	agctgagttg	180
actaccacta	cttttccctt	tgtctcaatt	atgtcttggga	agaaggcttt	gcggatcccc	240

ggaggccttc	gggcaccaac	tgtgaccttg	atgctggcga	tgctgagcac	cccagtggct	300
gagggcagag	accctcccga	ggatttctgtg	ctccagttta	aggccatgtg	ctacttcacc	360
aatgggacg	agcgcgtgcg	ttatgtgacc	agatacatct	ataaccgaga	ggaggacgtg	420
cgcttcgaca	gcgacgtggg	ggtgtatcgg	gcggtgacgg	cgagggggcg	gcctgacgcc	480
gagtactgga	acagccagaa	ggacatcctg	gagaggaccc	gagcggagtt	ggacacgggtg	540
tgcagacaca	actacgaggt	ggcgttccgc	gggatcttgc	agaggagagt	ggagcccaca	600
gtgaccatct	ccccatccag	gacagaggcc	ctcaaccacc	acaacctgct	ggtctgctcg	660
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acagctggcg	ttgtgtccac	cccccttatt	aggaacggtg	actggacctt	ccagatcctg	780
gtgatgctgg	aaatgactcc	ccagcatgga	gacgtctaca	cctgccacgt	ggagcacccc	840
agcctccaga	gccccatcac	cgtggagtgg	cgggctcagt	ctgaatctgc	ccagaacaag	900
atcgtgagt	gcattggagg	cttcgtgctg	gggctgatct	tcctcgggct	gggccttata	960
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cagaggaggt	agaaaaatcaa	ttcaattgtc	gcacatttca	tggttcttta	atattgatgc	1560
tcagtgcatt	ggccttagaa	tatcccagcc	tctcttctgg	tttggtgagt	gctgtgtaag	1620
taagcatggt	agaattgttt	ggagacatat	atagtgatcc	ttggtcactg	gtgtttcaaa	1680
cattctggaa	agtcacatcg	atcaagaata	ttttttat	ttaagaaagc	ataaccagca	1740
ataaaaatac	tattttttgag	tct				1763

<210> 61

<211> 1216

<212> DNA

<213> Homo sapiens

<220>

<223> MHC HLA class II DQw1.1 beta chain (HLA-DQB1)
precursor

<400> 61

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acttttccct	tcgtctcaat	tatgtcttgg	aagaagtctt	tgcggatccc	cggagacctt	120
cgggtagcaa	ctgtcacctt	gatgctggcg	atcctgagct	cctcactggc	tgagggcaga	180
gactctcccg	aggatttcgt	gtaccagttt	aagggcctgt	gctacttcac	caacgggacg	240
gagcgcgtgc	ggggtgtgac	cagacacatc	tataaccgag	aggagtacgt	gcgcttcgac	300
agcgacgtgg	gggtgtaccg	ggcagtgcg	ccgcaggggc	ggcctgttgc	cgagtactgg	360
aacagccaga	aggaagtcct	ggagggggcc	cgggcgtcgg	tggacagggt	gtgcagacac	420
aactacgagg	tggcgtaccg	cgggatcctg	cagaggagag	tggagcccac	agtgaccatc	480
tccccatcca	ggacagaggc	cctcaaccac	cacaacctgc	tgatctgctc	ggtgacagat	540
ttctatccaa	gccagatcaa	agtcgggtgg	tttcggaatg	atcaggagga	gacagccggc	600
gttgtgtcca	ccccctcat	taggaacggt	gactggacct	tccagatcct	ggtgatgctg	660
gaaatgactc	cccagcgtgg	agatgtctac	acctgccacg	tggagcacc	cagcctccag	720
agccccatca	ccgtggagt	gcgggctcag	tctgaatctg	cccagagcaa	gatgctgagt	780
ggcgttggag	gcttcgtgct	ggggctgata	ttccttgggc	ttggccttat	catccgtcaa	840
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actcttctgt	gatgcctgct	tgtccctgcc	cagaattccc	agctgcctgt	gtcagcttgt	960
ccccctgaga	tcaaagtcct	acagtggctg	tcacgcaacc	accaggtcat	ctcctttcat	1020
ccccaccca	aggegetggc	tgtgactctg	cttcctgcac	tgaccagag	ccactgcctg	1080
tacatggcca	gctgcgtcta	ctcaggcccc	aaggggat	tgtttctgtt	ctctcctcag	1140
actgctcaag	agaagcacat	gaaaaacatt	acctgacttc	agagcttttt	tacataatta	1200
aacatgatcc	tgagtt					1216

<210> 62
 <211> 915
 <212> DNA
 <213> Homo sapiens

<220>
 <223> rearranged immunoglobulin lambda light chain (Ig
 lambda)

<400> 62
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 gaagctcagc ttcagctgtg ggtagagaag acaggactca ggacaatctc cagcatggcc 120
 agcttccctc tcctcctcac cctcctcact cactgtgcag ggtcctgggc ccagtctgtg 180
 ctgactcagc caccctcagc gtctgggacc cccgggcaga gggtcacat ctcttgttct 240
 ggaagccgct ccaacgtcgg aagtaataat gttaactggg accagcagct cccaggaacg 300
 gccccaaac tcctcatcta tagtaataat cagcggccct caggggtccc tgaccgattc 360
 tctggctcca agtctggcac ctcagcctcc ctggccatca gtgggctcca gtctgaggat 420
 gaggtgatt attactgtgc aacatgggat gacagtactg tggctctcgg cggagggacc 480
 aagctgaccg tccttgggtca gcccaaggct gccccctcgg tcactctgtt cccgccctcc 540
 tctgaggagc ttcaagccaa caaggccaca ctggtgtgtc tcataagtga cttctacccg 600
 ggagccgtga cagtggcctg gaaggcagat agcagccccg tcaaggcggg agtggagacc 660
 accacaccct ccaaacaaa caacaacaag tacgcggcca gcagctatct gagcctgacg 720
 cctgagcagt ggaagtccca cagaagctac agctgccagg tcacgcatga agggagcacc 780
 gtggagaaga cagtggcccc tacagaatgt tcatagggtc tcaaccctca cccccacca 840
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 agcccttctc cctgc 915

<210> 63
 <211> 527
 <212> DNA
 <213> Homo sapiens

<220>
 <223> immunoglobulin heavy chain (IgH), VDJRC region

<400> 63
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 ctggtggagt ctgggggagg cgtggtccag cctgggaggt ccctgagact ctctgtgca 120
 gtctctggac tcacctttag tagctatggt atgcaactggg tccgccaggc tccaggcaag 180
 gggctgcagt ggggtggcagc tatatcatat gatggaagta ataaatacta cgcagactcc 240
 ttgaagggcc gattcaccat ctccagagac aattccaaga acacgctgta tctgcaaatg 300
 aacagcctga gatctgagga cacggctgtg tattactgtg cgagaggggc ggggattact 360
 gattttttgga gtggttatta cgtcaactgg ttcgaccctc ggggccaggg aaccctgggtc 420
 accgtctcct cagcttccac caagggccca tcgggtcttc ccctggcgcc ctgctccagg 480
 agcacctctg ggggcacagc ggccctgggc tgccctggta aggacta 527

<210> 64
 <211> 382
 <212> DNA
 <213> Homo sapiens

<220>
 <223> immunoglobulin lambda-like protein (IGLL2)

<400> 64
 ggtcagccca agactacccc gtcggtcatt ctgttctcgc cgtcctgtga ggagccccaa 60
 gccacaagg ccacactggt gtgtctcatg aataacttta tccgggaatc ttgatggtga 120
 cctggaaggc agatggtacc ctcacacccc agagcgtgga gaagaccacg ccctccaaac 180
 agagcaacaa caagtacgtg gccagcagct acctgagcct gacgcccag cagtggaggt 240

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cccgcagaag ctacagctgc cagggttatgc aagaagggag caccgtggag aagtcagtgg 300
ccoctgcaga atgttcatag gttccagccc ccaccccacc acaggggcct ggagctgcag 360
gatcccaggg gaggggtctc tc                                     382

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<210> 65
<211> 1244
<212> DNA
<213> Homo sapiens

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```

<220>
<223> immunoglobulin rearranged gamma chain, V-J-C
      region

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```

<400> 65
atggaagccc cagctcagct tctcttctct ctgtactctt ggctcccaga taccaccgga 60
gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttggc agctacttag cctggtagca acagaaacct 180
ggccaggctc ccaggcccct catctatgat gcatccaaca gggccactgg catcccagcc 240
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 300
gaagattttg cagtttatta ctgtcaacac cgtgacaatt ggcctccggg ggccactttc 360
ggcggagggg ccaaggtgga gatcaaacat accaccggag aaattgtgtt gacacagtct 420
ccagccaccc tgtctttgtc tccaggggaa agagccaccc tctcctgcag ggccagtcag 480
agtgttggca gctacttagc ctggtagcaa cagaaacctg gccaggctcc caggcccctc 540
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gggacagact tcaactctac catcagcagc ctagagcctg aagattttgc agtttattac 660
tgtcaacacc gtgacaattg gcctccgggg gccactttcg gcggagggac caaggtggag 720
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atgctaattg tggaggagaa tgaataaata aagtgaatct ttgc                                     1244

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```

<210> 66
<211> 454
<212> DNA
<213> Homo sapiens

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```

<220>
<223> immunoglobulin rearranged kappa light chain,
      variable region

```

```

<400> 66
ctcagctcct ggggctcctg ctgctctggc tctcaggtgc cacatgtgac atccagatga 60
cccagtcctc atcctccctg tctgcatctg taggagacag agtcaccatc acttgccagg 120
cgactcagga cattggcaac tatttaaatt ggtatcagca caaaccaggg aaagccccta 180
acctcctgat ctacgatgca tccaatttgg aaacaggggt cccatcaagg ttcagtggac 240
gtggatctgg gacacatttt actttcacca tcagcagcct gcagcctgaa gatattgcaa 300
catattactg tcaacagtat ggtaatctcc cattcacttt cggccctggg accaaagtgc 360
atatcaaacg aactgtggct gcaccatctg tcttcatctt ccgcatctg atgagcagtt 420
gaaatctgga ctgcctctgt tgtgtgcctg ctga                                     454

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<210> 67
 <211> 676
 <212> DNA
 <213> Homo sapiens

<220>
 <223> MHC HLA class II Ia-associated invariant gamma
 chain; CD74 antigen

<400> 67
 accccaacct caaccgccc cttctctctc cagtcccat gtgagagcag cagaggcggt 60
 cttcaacatc ctgccagccc cacacagcta cagctttctt gctcccttca gccccagcc 120
 cctcccccat ctcccaccct gtacctcatc ccatgagacc ctggtgctg gctctttcgt 180
 cacccttggg caagacaaac caagtcggaa cagcagataa caatgcagca aggccctgct 240
 gcccaatctc catctgtcaa caggggcgtg aggtcccagg aagtggccaa aagctagaca 300
 gatccccgtt cctgacatca cagcagcctc caacacaagg ctccaagacc taggctcatg 360
 gacgagatgg gaaggcacag ggagaaggga taaccctaca cccagacccc aggctggaca 420
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 cacccataat cttttctgcc gacccttagt tccctctgct cagccaagct tgttatcagc 600
 tttcagggcc atggttcaca ttagaataaa aggtagtaat tagaacactc tggttcctgc 660
 cttttctggt gagaga 676

<210> 68
 <211> 468
 <212> DNA
 <213> Homo sapiens

<220>
 <223> omega light chain protein 14.1, immunoglobulin
 lambda chain-like

<400> 68
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 ggaatcttga cggtgacctg gaaggcagat ggtaccccca tcaccagggt cgtggagatg 180
 accacgccct ccaaacagag caacagcaag tacatggcca gcagctacct gagcctgacg 240
 cccgagcagt ggagggtccc cagaagctac agctgccagg tcatgcacga agggagcact 300
 gcagagaaga cggtggcccc tgcagaatgt tcataggttc ccagccccca gccacccac 360
 agggggcctg gagctgcagg atcccagggt aggggtctct ctccccatcc caagtcattc 420
 agcccttctc cctgcactca tgaacccca ataaatatcc tcattgac 468

<210> 69
 <211> 2919
 <212> DNA
 <213> Homo sapiens

<220>
 <223> polymeric immunoglobulin receptor (poly-Ig
 receptor, PIGR) precursor; hepatocellular
 carcinoma-associated protein TB6; transmembrane
 secretory component (SC)

<400> 69
 agagtttcag ttttggcagc agcgtccagt gccctgccag tagctcctag agaggcaggg 60
 gttaccaact ggccagcagg ctgtgtccct gaagtcagat caacgggaga gaaggaagtg 120
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 atgctgctct tcgtgctcac ctgctgctg gcggctcttc cagccatctc cacgaagagt 240
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tactacccac	ccacctctgt	caaccggcac	acccggaagt	actggtgceg	gcagggagct	360
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tttgatgtca	gcctggaggt	cagccagggg	cctgggctcc	taaatgacac	taaagtctac	600
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aagaggaagt	ccttgtacaa	gcagataggc	ctgtaccctg	tgctgggtcat	cgactccagt	720
ggttatgtga	atcccaacta	tacaggaaga	atacgccttg	atattcaggg	tactggccag	780
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tggtactggt	gtggagtga	gcagggccac	ttctatggag	agactgcagc	cgtctatgtg	1860
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gcctagggtt	ttcctactgt	cctcagaggc	gtgctgggtc	cctcctcagt	gacatcaaag	2640
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ggaagaggtg	ccaggctggg	agagctgatt	gcagaaagga	gagacgtgca	gcgccccctc	2820
gcacccttat	catgggatgt	caacagaatt	ttttccctcc	actccatccc	tccctcccgt	2880
ccttccccctc	ttctttctttc	cttaccatca	aaagatgta			2919

<210> 70

<211> 1799

<212> DNA

<213> Homo sapiens

<220>

<223> immunoglobulin alpha heavy chain allotype 2
constant region; IgA2 H chain C region (IGHA2)

<400> 70

cctctctgtg	ctgggttcct	ccagtgtaga	ggagaggcag	gtacagcctg	tcctcctggg	60
gacatggcat	gagggccgcg	tcctcacagc	gcattctgtg	ttccagcatc	cccgaccage	120
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<210> 71

<211> 1151

<212> DNA

<213> Homo sapiens

<220>

<223> T-cell specific protein; T-cell receptor
beta-chain

<400> 71

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<210> 72
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<220>
 <223> gamma-interferon-inducible protein precursor
 (IP30); contains gamma-interferon inducible
 lysosomal thiol reductase (GILT)

<400> 72
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 gctggacgtc cccacggcgg cgggtgcaggc gtcccctctg caagcgtag acttcttttg 180
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 aactagttta at 1032

<210> 73
 <211> 2709
 <212> DNA
 <213> Homo sapiens

<220>
 <223> interferon-gamma induced protein 16 (IFI16);
 interferon-inducible myeloid differentiation
 transcriptional activator

<400> 73
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 gaagaaaagt tccgaggtga tgctggtttg ggcaaaactaa taaaaatttt cgaagatata 480
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<210> 74

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<223> hepatitis C-associated microtubular aggregate
protein p44

<400> 74

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acgtaaattd	cctcacatca	cagaagatta	aaattcagaa	aggagaaaac	acagaccaaa	180
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<210> 75

<211> 634

<212> DNA

<213> Homo sapiens

<220>

<223> interferon-stimulated protein 15 kDa (ISG15); ISG15
ubiquitin-like modifier; ubiquitin cross-reactive protein
(UCRP) precursor; interferon alpha-inducible protein
(IFI-15K); interferon-induced 17 kDa protein precursor

```

<400> 75
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caagggccgg aaataaaggc tgttgtaaga gaat 634

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<210> 76
<211> 1451
<212> DNA
<213> Homo sapiens

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<220>
<223> interleukin 2 receptor gamma subunit chain (IL2RG,
      hIL-2Rg) precursor; cytokine receptor common gamma
      chain (gamma-C) precursor; CD132 antigen; p64

```

```

<400> 76
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tgataatcat c 1451

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```

<210> 77
<211> 1071
<212> DNA
<213> Homo sapiens

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<220>
<223> complement factor D (DF) precursor; adipsin; C3
      convertase activator; properdin factor D

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```

<400> 77
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```

<210> 78
<211> 1192
<212> DNA
<213> Homo sapiens

```

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<220>
<223> CD9 antigen; leukocyte antigen MIC3;
motility-related protein-1 (MRP-1); tetraspanin-29
(Tspan-29)

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<400> 78
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<210> 79
<211> 2880
<212> DNA
<213> Homo sapiens

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<220>

<223> defensin 5 (DEF5) preproprotein; defensin alpha 5
(DEFA5); paneth cell-specific alpha-defensin 5

<400> 79

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alpha-defensin 6

<400> 80

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 precursor; macrophage elastase (ME)

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 type I interstitial collagenase; fibroblast
 collagenase; tissue collagenase

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<210> 84

<211> 1801

<212> DNA

<213> Homo sapiens

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stromelysin 1 (SL-1) precursor, preprostromelysin;
proteoglycanase; progelatinase; transin-1

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 <212> DNA
 <213> Homo sapiens

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 <223> elastase-specific inhibitor (ESI); elafin precursor; protease inhibitor 3 (PI3), skin derived (SKALP); skin-derived anti-leukoproteinase; whey acidic protein (WAP) four-disulfide core domain protein 14; protease inhibitor WAP3

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 <223> n = g, a, c or t

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 <212> DNA
 <213> Homo sapiens

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 chain precursor; prepro-alpha2(I) collagen
 (COL1A2)

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 <222> (1)..(5086)
 <223> n = g, a, c or t

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<211> 10558

<212> DNA

<213> Homo sapiens

<220>

<223> collagen alpha 3 type VI; type VI collagen alpha3
chain; collagen alpha 3(VI) chain precursor
(COL6A3)

<400> 87

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 <211> 2252
 <212> DNA
 <213> Homo sapiens

<220>

<220>

<223> alpha-1 collagen type I; alpha-1 type I collagen;
 collagen alpha-1 (I) chain precursor; collagen I,
 alpha-1 preproprotein; prepro-alpha1(I) collagen
 (COL1A1)

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<210> 89
<211> 2520
<212> DNA
<213> Homo sapiens

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      collagen (COL3A1); Ehlers-Danios syndrome type IV;
      fetal collagen

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<223> n = g, a, c or t

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<211> 1585

<212> DNA

<213> Homo sapiens

<220>

<223> collagen alpha-2(VI) chain precursor; collagen VI
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collagen alpha 2 chain precursor (COL6A2)

<400> 90

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<210> 91

<211> 2212

<212> DNA

<213> Homo sapiens

<220>

<223> collagen alpha-2(IV) chain precursor; alpha-2 type
IV collagen; type IV collagen alpha (2) chain;
(COL4A2); procollagen; basement membrane collagen

<400> 91

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<210> 92

<211> 1830

<212> DNA

<213> Homo sapiens

<220>

<223> mucin 4; tracheo-bronchial mucin (MUC4)

<400> 92

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<210> 93

<211> 490

<212> DNA

<213> Homo sapiens

<220>

<223> trefoil factor 1 (TFF1) precursor; gastrointestinal trefoil protein pS2; pS2 protein precursor; protein NR-2/pS2; estrogen-regulated protein pNR-2; breast cancer estrogen inducible sequence (BCE1, BCE I); HP1.A

<400> 93
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<210> 94
<211> 229
<212> DNA
<213> Homo sapiens

<220>
<223> intestinal mucin

<400> 94
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<210> 95
<211> 2133
<212> DNA
<213> Homo sapiens

<220>
<223> osteonectin precursor; secreted protein, acidic,
cysteine rich (SPARC); basement-membrane protein
40 (BM-40); extracellular matrix protein BM-40

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<210> 96
 <211> 1182
 <212> DNA
 <213> Homo sapiens

<220>
 <223> proteoglycan 1 (PRG1); hematopoietic proteoglycan core protein;
 secretory granule proteoglycan core protein precursor;
 serglycin (SRGN) precursor; proteoglycan secretory granule 1;
 HL-60 cell proteoglycan peptide core; platelet proteoglycan

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<400> 96
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<210> 97
 <211> 1806
 <212> DNA
 <213> Homo sapiens

<220>
 <223> peripheral myelin protein 22 (PMP22); growth
 arrest-specific 3 (GAS-3); SR13 protein;
 PAS-II/SR13/Gas-3

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<210> 98
 <211> 7680
 <212> DNA
 <213> Homo sapiens

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 (FN) precursor; cold-insoluble globulin (CIG);
 migration-stimulating factor

<400> 98						
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 <211> 2691
 <212> DNA
 <213> Homo sapiens

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 RGD-containing collagen-associated protein
 (RGD-CAP); ig-h3, beta ig.h3

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precursor; osteoblast specific factor 2
(fasciclin-I-like); periostin (PN, POSTN);
periodontal ligament-specific periostin

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<220>

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coagulation factor VIII (F8VWF)

<400> 101

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<220>

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<213> Homo sapiens

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<211> 2597

<212> DNA

<213> Homo sapiens

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beta adducin 2; rabphilin-3A-interacting protein

<400> 104

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 <213> Homo sapiens

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 cytoskeletal 20; protein IT

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<211> 105

<212> DNA

<213> Homo sapiens

<220>
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<210> 109
 <211> 4656
 <212> DNA
 <213> Homo sapiens

<220>
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 fructose-bisphosphatase; fructose-1,6-bisphosphate
 aldolase; fructose-1,6-bisphosphate
 triosephosphate lyase B

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<210> 110
 <211> 1062
 <212> DNA
 <213> Homo sapiens

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 <223> glucagon (GCG) preproprotein; enteroglucagon;
 glicentin-related polypeptide (GRPP);
 oxyntomodulin (OXY, OXM)

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<210> 111

<211> 2578

<212> DNA

<213> Homo sapiens

<220>

<223> monocarboxylate transporter 1 (MCT1); solute carrier, family 16, member 1 (SLC16A1)

<400> 111

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<210> 112
 <211> 4122
 <212> DNA
 <213> Homo sapiens

<220>
 <223> 2-oxoglutarate dehydrogenase (OGDH) precursor; 2-oxoglutarate
 dehydrogenase E1 component, mitochondrial precursor;
 alpha-ketoglutarate dehydrogenase; oxoglutarate
 (alpha-ketoglutarate) dehydrogenase (lipoamide)

<400> 112
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<210> 113

<211> 1450

<212> DNA

<213> Homo sapiens

<220>

<223> alcohol dehydrogenase 1A (ADH1A, ADH1); class I
alcohol dehydrogenase alpha subunit (aADH);
aldehyde reductase

<400> 113

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cttccttctt 1450

<210> 114
<211> 1523
<212> DNA
<213> Homo sapiens

<220>
<223> carbonic anhydrase II (CA2, CA II); carbonic
anhydrase B; carbonic dehydratase; carbonate
dehydratase II

<400> 114
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gcaaacacaa cggacctgag cactggcata aggacttccc cattgccaaag ggagagcgcc 120
agtccccctgt tgacatcgac actcatacag ccaagtatga cccttccctg aagccccctgt 180
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tctctaataa aattcagaat tct 1523

<210> 115
<211> 655
<212> DNA
<213> Homo sapiens

<220>
<223> carbonic anhydrase IV (CA4, CA-IV) precursor;
carbonic dehydratase; carbonate dehydratase IV;
retinitis pigmentosa 17 (autosomal dominant)

<400> 115
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cacggtgata aagtccgggg ccccggtcg gccgtgccc tgggcctgct ctgccctgct 360
gggccccatg ctggcctgcc tgctggccgg cttcctgcga tgatggctca cttctgcacg 420

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tttttagcct	tccacaacta	ccccacctg	tccccctcca	cccacctctg	ttcctcctgt	600
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<210> 116

<211> 2657

<212> DNA

<213> Homo sapiens

<220>

<223> phosphoenolpyruvate carboxykinase 1, soluble
(PCK1, PEPCK)

<400> 116

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<210> 117
 <211> 1248
 <212> DNA
 <213> Homo sapiens

<220>
 <223> syntaxin 4A (STX4A, STX4) precursor; syntaxin
 (placental)

<400> 117
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 aaaaaattaa aaaacaaaaa aagagcatag aaaaaaaaaa aaccgagt 1248

<210> 118
 <211> 2010
 <212> DNA
 <213> Homo sapiens

<220>
 <223> chaperonin subunit 6A (CCT6A); chaperonin containing T-complex
 protein 1 (TCP1), subunit 6A; chaperonin containing TCP1, zeta
 1 (CCT-zeta-1); histidine transport regulator 3 (HTR3); acute
 morphine dependence related protein 2; TRiC chaperonin subunit

<400> 118
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<210> 121
<211> 2191
<212> DNA
<213> Homo sapiens

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<220>
<223> beta-glucuronidase (GUSB) precursor;
      glucuronidase-beta; beta-D-glucuronoside
      glucuronosohydrolase; glucuronohydrolase; beta-G1

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<400> 121
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<210> 122

<211> 2090

<212> DNA

<213> Homo sapiens

<220>

<223> UDP-glucuronosyltransferase 2 family, protein B15 (UGT2B15, UDPGT) precursor; UDP-glucuronosyltransferase 2B8 (UGT2B8) precursor, microsomal (estriol-specific); dihydrotestosterone/ androstanediol UDP-glucuronosyltransferase isoform 3 (UDPGTh-3)

<400> 122

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<210> 123

<211> 1137

<212> DNA

<213> Homo sapiens

<220>

<223> thiosulfate sulfurtransferase (TST);
thiosulfate:cyanide sulfurtransferase; thiosulfate
cyanide transsulfurase; thiosulfate
thiotransferase; rhodanese

<400> 123

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<210> 124

<211> 3494

<212> DNA

<213> Homo sapiens

<220>

<223> aminopeptidase N (ANPEP, PEPN, APN) precursor; membrane alanine
aminopeptidase precursor; alanyl (membrane) aminopeptidase;
microsomal aminopeptidase; aminopeptidase M; CD13 antigen;
p150; IGF1R

<400> 124

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3494

<210> 125
 <211> 1815
 <212> DNA
 <213> Homo sapiens

<220>
 <223> protective protein for beta-galactosidase (PPGB,
 PPR) precursor; beta-galactosidase 2;
 carboxypeptidase C precursor; lysosomal protective
 protein; cathepsin A precursor

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1815

<210> 126
 <211> 584
 <212> DNA
 <213> Homo sapiens

<220>

<223> fatty acid binding protein 6 (FABP6); gastropin
(GT) isoform 1; ileal lipid-binding protein (ILBP,
Il1bp); ileal bile acid binding protein (I-BABP);
intestinal 15 kDa protein (I-15P)

<400> 126

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<210> 127

<211> 634

<212> DNA

<213> Homo sapiens

<220>

<223> fatty acid binding protein 4, adipocyte (FABP4);
adipocyte lipid-binding protein (ALBP); aP2, p15

<400> 127

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<210> 128

<211> 489

<212> DNA

<213> Homo sapiens

<220>

<223> fatty acid binding protein 1, liver (FABP1, FABP2,
L-FABP); fatty acid binding protein, hepatic; Z
protein; sterol carrier protein

<400> 128

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<211> 882
<212> DNA
<213> Homo sapiens

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<223> delta3, delta2-CoA-isomerase (DCI);
delta(3)-delta(2)-enoyl-CoA isomerase;
dodecenoyl-CoA delta-isomerase precursor,
mitochondrial; 3,2-trans-enoyl-CoA isomerase

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<210> 130
<211> 1584
<212> DNA
<213> Homo sapiens

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<223> acetyl-CoA acyltransferase 2 (ACAA2);
mitochondrial 3-oxoacyl-CoA thiolase;
3-ketoacyl-CoA thiolase, mitochondrial;
beta-ketothiolase; T1

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<210> 131

<211> 9127

<212> DNA

<213> Homo sapiens

<220>

<223> 3-beta hydroxysteroid dehydrogenase type II (HSD3B2);
5delta-4delta isomerase; 3-beta isomerase 2; hydroxy-delta-5
steroid dehydrogenase; steroid delta-isomerase 2; 3beta-hydroxy
delta5-steroid dehydrogenase multifunctional protein II

<400> 131

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 <213> Homo sapiens

<220>
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 precursor; acetyl-CoA acetyltransferase 1 (ACAT1)
 precursor; T2

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 <223> acyl-CoA dehydrogenase, C-2 to C3 short chain
 (ACADS) precursor; short-chain specific acyl-CoA
 dehydrogenase (SCAD) precursor

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<210> 134

<211> 1344

<212> DNA

<213> Homo sapiens

<220>

<223> hydroxysteroid (17-beta) dehydrogenase 2 (HSD17B2); 17 beta hydroxysteroid dehydrogenase type 2 (17b-HSD); 17beta-estradiol dehydrogenase; estradiol 17beta dehydrogenase type 2; 20alpha-hydroxysteroid dehydrogenase

<400> 134

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<210> 135

<211> 1897

<212> DNA

<213> Homo sapiens

<220>

<223> 11-beta-hydroxysteroid dehydrogenase type II
(HSD11B2, 11-beta-HSD2, 11-DH2); corticosteroid
11-beta-dehydrogenase, isozyme 2; NAD-dependent
11-beta-hydroxysteroid dehydrogenase

<400> 135

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<210> 136

<211> 511

<212> DNA

<213> Homo sapiens

<220>

<223> MAT8 protein; FXD domain containing ion transport
regulator 3 (FXD3) precursor; chloride
conductance inducer Mat-8; phospholipase-like
protein

<220>

<221> modified_base

<222> (511)

<223> n = g, a, c or t

<400> 136

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<210> 137

<211> 571

<212> DNA

<213> Homo sapiens

<220>

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<400> 137

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<210> 138

<211> 755

<212> DNA

<213> Homo sapiens

<220>

<223> 6-pyruvoyl-tetrahydropterin synthase (PTPS, PTS); PTP synthase

<400> 138

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<210> 139

<211> 3727

<212> DNA

<213> Homo sapiens

<220>

<223> KIAA0035; similar to rat nucleolar phosphoprotein
of 140 kD (RATNOP140B), nucleolar and coiled body
phosphoprotein 1 (NOLC1), nucleolar phosphoprotein
p130; trans-regulated protein 13; HCV NS5A

<400> 139

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<211> 5654

<212> DNA

<213> Homo sapiens

<220>

<223> KIAA0367; BNIP2 motif containing molecule at
carboxyl terminal region (BMCC1)

<400> 140

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 <223> endogenous retrovirus envelope region; pseudo-env;
 PL1

<400> 141

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 <212> DNA
 <213> Homo sapiens

<220>
 <223> cytochrome c oxidase subunit Vb, mitochondrial
 precursor; cytochrome c oxidase subunit 5B (COX5B)

<400> 142

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 <213> Homo sapiens

<220>
 <223> pancreatic ribonuclease A precursor; ribonuclease,
 RNase A family, 1 (pancreatic) (RNASE1, RNS1,
 RNase A, RNase 1); ribonuclease HK-2A;
 ribonuclease, secretory; HP-RNase; RNase UPI-1;
 RIB1

<400> 143

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<210> 144

<211> 2000

<212> DNA

<213> Homo sapiens

<220>

<223> K12 protein precursor; secreted and transmembrane
protein 1 (SECTM1) precursor

<400> 144

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<210> 145

<211> 121

<212> DNA

<213> Homo sapiens

<220>

<223> clone E18 from CpG-enriched DNA

<400> 145

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a                                                    121

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